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ABSTRACT

In the artistic process the artist verifies and exemplifies his or her perceptions and conception of their work. This paper discusses the model of the artistic process which describes the repertoire of perceptual clues that the artist develops. The rationale for the development of the model is for the art teacher to be able to explain in simple terms the relationship between perception and the making of art. The paper aims to acknowledge and emphasize the importance of perception to the making of art. It explains that the model is used by the author in a course on the teaching of art criticism, art history, and aesthetics. The paper has two parts. In the first part, background research (research and development activities in the Aesthetic Education Program in the 1970s which became the basis for the model are described. In the second part, the Model for the Artistic Process is outlined and its relationship to perception and instruction is discussed. Includes 10 notes and 2 diagrams. (BT)

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Visual Perception and the Artistic Process

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Introduction

What is it to perceive a work of art sensitively, insightfully, appreciatively -- as we would all like to do more of the time? No wonder that the question is difficult. A look at the contemporary psychology of visual perception quickly discloses that the mundane seeing of ordinary objects is an awesomely complex achievement of the human organism. To make an already challenging problem for psychology all the more so, one need only turn to the arts. The reasonably sophisticated perceiver's encounter with a visual, literary, musical or other work of art surely is one of the most rich and subtle episodes of perception to be found. Michael Loren Perlmutter and D. N. Perkins [1]

In the artistic process the artist verifies and exemplifies his or her perceptions and conception of their art work. Historians have recorded the artistic process of a single work in progress, to illustrate the context, the iconography, and the historical significance of a work by a given artist. Thus we have a body of knowledge and visual documentation which centers on the way artists make art. Visual perception, which is the ability of the artist to recognize and understand visual phenomena and aesthetic clues, is fundamental in creating and responding to works of art. The artist reaches different levels of sophistication in perceiving the work, which is to recognize the perceptual clues in the work that determines the aesthetic outcomes. The less able responder only recognizes the most obvious of clues whereas the sophisticated responder, the artist, has a larger repertoire. The artist is an active participant in controlling the work in progress through his or her perceptions. This is more than a casual activity if the perceptions are being internalized by the artist.

The model of the artistic process, the subject of this paper, describes the repertoire of perceptual clues that the artist develops. The rational for the development of the model is to be able to explain in simple terms the relationship between perception and the making of art. I use

the model in my course on the teaching of art criticism, art history and aesthetics. It is my attempt to acknowledge and emphasize the importance of perception to the making of art. Further to illustrate that the art making process is controlled by the artist, the human element in the process. The model was my attempt at ordering my own thinking and experiences as an artist about the artistic process so as I could explain it to others. It describes the sequence and tasks in the creation of the work of art. It categorizes how the artist determines the dominant characteristics of the work, establish a relationship between the perceptual information and the work, and determines its meaning or expressive content.

The paper has two parts. One, background research, describes my research and development activities in the Aesthetic Education Program in the seventies which became the basis for the model. Two is a description of the Model for the Artistic Process and its relationship to perception and instruction.

Background Research

Rudolph Arnheim has related cognitive functions of the brain to visual concept formation. He outlined his theory for visual concept formation in his seminal work, *Visual Thinking*[2]. I categorized Arnheim's perceptual theory about visual concept formation, into five phases: observation, description of visual relationships, selectivity, generalization of form, and abstraction. This continuum defines the visual skills that Arnheim considered essential to perception and visual concept formation. The five levels of perceptual learning are described below:

1. ***Observation*** the act of noticing and perceiving. The ability to visually investigate an object or

event and develop a consciousness of visual stimuli in the natural or built environment.
2. Description of Visual Relationships is the ability to select and generalize visually about the environment, to recognize and describe either visually or orally relationships between art elements as line, shape, color, and texture, their chances of later being able to generalize and discuss the formal relationships that would be enhanced. Arnheim states that visual perception constantly involves the apprehension of relationships between the whole of the visual field and items within it. Piaget concurs and thinks that the establishment of relationships is a principle cognitive mechanism. In perception, such mental operations function within "rules of grouping by similarity" such as shape, color, and movements, as described by Gestalt psychologists.
3. Selectivity, the act of selection, is similar to the method by which a photographer chooses parts out of the whole by using a camera's viewfinder. The perceptual problem of selectivity involves recognition, ordering and simplification of visual phenomena. Selectivity, thus, is a part of direct perception. Arnheim indicates that all cognitive activity presupposes selection and that the mind must focus on the subject to be considered and thereby lift it out of the continuum of the total given world. To establish the proper range ,how much to include, how much to exclude is the crucial aspect of visual problem solving. Perception is selective by its very nature. Selection of visual phenomena from any given natural or built environment is the source of information for perception.
4. Generalization of Form is the ability to synthesize visual phenomena. It implies that the individuals can analyze visual phenomena and take apparently unrelated parts and bring them into a generalizable whole. The ability to perceive and analyze the work of art in its totality and generalize about its content distinguishes this kind of perception from the others. These are generalizations about the form of the work of art that characterize the total composition and the relationships that exist between the elements.
5. Abstraction is the simplification and essence of the image to be captured through selective perceptions of an object or event. It encompasses the expressive qualities in the interpretation of the object or event.[3]

The implication of this learning continuum for art instruction is that activities emphasized in each category can be used for heightening critical and perceptual skills. The perceptual skills are analytic tools in the artistic process. The perceptual continuum was used as the basis of several curriculum units in the Aesthetic Education Program and is the base for the perceptual component of the model.

In a second study **A Model for Aesthetic Response in the Arts** directed by Perkins and Madeja created a phenomenological account of perceiving art that captured something of the character of the experience. The aesthetic response model developed by Perkins and Perlmutter

as part of the study defines several important dimensions of that experience. The aim of the model is to make explicit room for many more factors that such theories of direct perception usually recognize. Perkins and Perlmutter asked such questions as "What is aesthetic experience made of?" and go on to answer:

> We will say that aesthetic experience is made of "registrations." Nothing especially subtle or profound is meant by this. No deep theory of underlying psychological mechanisms is proposed. Rather, "registration" is just a way of speaking about our experience with art. It is a way of emphasizing that experience is made up of instants of apprehension. Moment-to-moment, in confronting a work of art, the perceiver apprehends things about it -- colors, tones, symmetries, unities, contents. A registration is simply the formation in the perceiver's mind of a state which can be thought of as in some way encoding something concerning the work. Of course, by this definition, nearly anything that happens in the mind of the perceiver while regarding a work would count as a registration. However, we narrow the concept by defining certain ways of registering and certain contents to be registered that are especially germane to understanding aesthetic response. [4]

In exploring the concept of registration, they investigated what kinds of attributes people register, what kinds of representations form in the mind to constitute the registering, the degree to which they intrude on conscious awareness, and other characteristics of registrations, mapping the varieties of the aesthetic instant. Registration contrasts with another aspect of response to art. Perkins and Perlmutter call that aspect "construction." This concerns the pattern that the registrations make as the perceiver regards a work over several seconds or minutes and develops an ever more subtle and penetrating appreciation of it. While registration takes a synchronic perspective on the perceiver's encounter with art, construction takes a diachronic one. Here enters the role of perceivers in directing their encounter with the work: how they elect to attend physically to the art object and mentally to the qualities and meanings in it; how they savor discard elements of the experience and seek new elements; how, in brief, they orchestrate their encounter with the work (see Diagram 1)[5].

Diagram 1.

Dimensions of Registration

1. Stimulus
    - 1.1 The Work and Its Parts
    - 1.2 Contrasting Works
    - 1.3 Work Prescription
    - 1.4 Work Descriptions
2. Content
    - 2.1 Sensations
    - 2.2 Formal Qualities
    - 2.3 Expressive Qualities
    - 2.4 Global Character
    - 2.5 Special Conceptual Qualities
    - 2.6 Objects Represented, However Abstractly
    - 2.7 Narratives, Topics, and Allegories
    - 2.8 Conventional Symbols
    - 2.9 Function
    - 2.10 Style
    - 2.11 Historical and Cultural Associations
    - 2.12 Personal Associations
    - 2.13 Value Judgments
    - 2.14 Originality
    - 2.15 Skill
    - 2.16 Materials and Techniques
3. Mode
    - 3.1 Phenomenal Mode
    - 3.2 Linguistic Mode
    - 3.3 Kinesthetic Mode
    - 3.4 Affective Mode
    - 3.5 Performance Mode
4. Metaphoricity
    - 4.1 Literal Registration
    - 4.2 Representation, The Mundane Metaphor
    - 4.3 Blatant Metaphor
    - 4.4 Synesthesia: Metaphor Across Modalities
5. Consciousness
    - 5.1 Centrality
    - 5.2 Objectification
    - 5.3 Involvement/Detachment

Another part of the study was to define the end state of the able responder. Below is a summary of the end state characteristics of the able responder by Madeja:

> 1) The ability to locate and to recognize aesthetic clues through visual and aural perception.
> 2) The ability to pick out the dominant characteristics of the work and establish a relationship between the perceptual clues, the whole work and its meaning or expressive content.
> 3) The ability to describe a work with depth and breadth of knowledge about the art form.
> 4) The assimilation of different modes in which description can take place (modes here is referential in definition to our model.)
> 5) The ability to describe the work in different contexts -- a cultural context, historical context, and so on.
> 6) The ability to write a qualitative discourse about a work.
> 7) The ability to analyze relationships between the parts and whole of a given work of art.
> 8) The ability to formulate questions about the work which elicit discourse, and further, to know a set of question to ask about a given work.
> 9) The ability to analyze a work and include interpretive dimensions as well as literal properties.[6]

A third study **Pioneers in Perception** by Ecker and Madeja articulated the interrelationships of cognitive skills collectively placed under the rubric of perception. The data for the study was the content of interviews with five prominent researchers, James Gibson, Rudolph Arnheim, Hoyt Sherman, Henry Schaefer-Simmern, and Nelson Goodman who have made significant contributions to perceptual research. The main purpose of the interviews was to specify and capture what these investigators believed to be at that time, 1978, the knowledge base of visual perception and its significance in relation to other domains of human knowledge and experience such as aesthetics. Further to define the relationship, if any, between general perception and aesthetics. The nature of perception was explored thoroughly in each interview and the analysis describing the salient features of each researcher's general theory of perception.

What follows is an excerpt from the concluding chapter of the study that summarizes the collective views on aesthetic perception:

Arnheim came the closest to saying that aesthetic perception might have unique features distinguishing it from general perception, but he did not in any way support the idea that aesthetic perception is either unrelated to or unique in terms of general modes of perceiving visual phenomena. Although he rejected the general relationship between perception and aesthetic perception, he made the case that expression is inherent in anything we see, particularly in what young children see. He noted that expression is a constant phenomenon accompanying all perception and that it is the presence of expression that sets the arts apart as a unique phenomenon. He used the example of a loaf of bread in a Chardin still life: when the object is subject matter for the artist it becomes an expressive object, not just something to eat or sell. Arnheim does agree that it is feasible and very important to educate for and about the aesthetic properties of objects and events. He does not see us educating for something as simplistic as seeing the shapes in a painting for their own sakes. He notes that everything should be perceived in terms of what the message is, what the shapes or colors express, what comes across through the art form: "You make people into gourmets if you try to teach them sensitivity of the fingertips and all that stuff for its own sake. What you want to do with children is to make them aware of the expression there is in an object. Something comes across through the eyes about the nature of that object and about its meaning.

Goodman rejected outright the separation of aesthetic perception from perception and general cognitive functioning, saying that skill development patterns in other areas may be used to teach and educate for aesthetic perception. He used the example of physical education, especially contact sports, where rigorous exercises and procedures are laid out sequentially to teach the players the moves and fundamentals of games like football. Gibson at one time in his career reduced all aesthetic perception to pure discrimination, saying there is nothing to aesthetics except connoisseurship, the ability to discriminate visually or auditorially. In the course of the interview he stated that he is no longer so ready to reduce aesthetics simply to discrimination and discriminatory modes of inquiry or judgment. He is now at least speculating that aesthetic perception has validity of a sort over and above useful perception. As he characterizes his own theory, it is strictly factional theory applicable to perception that has utility, and he is unsure about the context of aesthetics in this functional theory. In perceiving a picture, one can get useful information about the meanings of the picture and image and so on. However, how one discerns and grasps the aesthetic qualities and merit of that particular picture, Gibson at this point was not sure he knew that or how he wanted to state it. Pushing him a bit farther on this question, we asked whether or not to complete his theory about information. He was willing to say that aesthetic perception is a contradiction in terms, that aesthetic qualities are really sensed but not perceived; that is, if he would say that people can have aesthetic experiences without objects in the world because they have attended to their sensations. His answer was that he didn't like this. We further queried him as to whether we can apprehend paintings as objects in the world in which case it is perception or whether we can attend to sensory qualities in our experience. He countered that this was not a good enough theory of aesthetics.

Gibson said that the whole of aesthetic experience is often explained by the tendency to introspect or pay attention to the subject's sensations. Just saying that about the aesthetic experience, he contends, will not do for a theoretical base. Gibson's essential dilemma is how to connect aesthetic perception and his theory of functionalism and utility. He feels that he has been able to articulate the relationship. In further pursuing this point, makes it clear that aesthetic perception must fit into his functional utilitarian approach to perception or else be considered pretense. He forthrightly says that art critics and philosophers who talk about aesthetics are often pretentious, and that a lot of arts criticism is nonsense. So he contends that the valid part of aesthetics is reducible to perception. In that case, aesthetic perception is nothing but an extension of regular, ordinary perception of the world. Thus, in a roundabout way, Gibson ends by agreeing with him and Goodman on the positioning of aesthetic perception within the main of visual perception.

Sherman and Schaefer-Simmern tie their theories of aesthetic perception to the pedagogy of the teaching of the visual arts. Sherman states he knows no way to teach aesthetic perception other than the two methods outlined in the interviews and developed over the years. Sherman draws most of his theoretical base from his knowledge of optics and from the nature theory of art. He epitomizes aesthetic perception as what Cezanne perceived his environment and how he translated that into his paintings. Therefore, he ties aesthetic perception to the nature and function of seeing, to training the eye to pick up those details of form, color, size, shape, and texture that the essence of the work of art. Finally, he does not pose a general theory f or aesthetic perception, but rather methodologies by which we can promote this kind of seeing and perception in students. Schaefer-Simern never addressed himself specifically to the aesthetic perception as his whole theory of artistic thinking is essential to his way Unfolding of Artistic Activity, and exemplified in, the case of self relating to the perceptive process. This relationship is demonstrated in his case study of Thelma. He ties his definition of aesthetic perception to the figure-ground relationship as essential to the basic structure of a work of art, and basic to artistic knowing and forming. Without it he contends, there is no visual order. And without visual order there is no visual comprehension, no formed expression possible, only disorder and chaos. He relates this directly to the basic skills as he feels that the entire field of mental comprehension is dependent upon some type of structure. And here he refers to Koffka's The Growth of Mind and Arnheim's Arts and Visual Perception and Visual Thinking for the verification of this structure.

To summarize, aesthetic perception as viewed by these five very significant figures in the area of perceptual research does not have qualities or characteristics distinguishing enough to provide a base for a separate theory. In all the interviews aesthetic perception is tied into general perception theory. There is no doubt that one has to draw some of the basis for aesthetics from philosophic inquiry, but the theory comes from some other discipline. Consequently, our discussions with these five prominent researchers bear out Hochberg's comment that perception is based in psychology. Goodman ties aesthetic perception to general cognitive theory. Arnheim ties it to the thought process or visual thinking. Gibson is trying to relate it to his functional notion of perception. Schaefer-Simme-m considers it as basic to cognition, and Sherman ties it to our physiological mechanisms for seeing. Existing psychological theory needs to be expanded to include aesthetic domains. As Goodman argued, it may even be appropriate to develop a precise theory related to the aesthetic. He supports the need for a taxonomy or schematic

background to act as a backdrop for experimental questions and interpretation of data. Goodman also cautions that one of the problems in discussing terms like aesthetic perception is that it obscures the vast differences among the kinds of aesthetic objects: the poem, the novel, the sculpture, the dance. Any theoretical stance must take into account these differences.

One conclusion drawn from this study is the need to provide a better definition of and a more precise schema for aesthetic perception as grounded in general perception theory. It is obvious that if you support Gibson, you have to reject Goodman or Arnheim. The relationship between aesthetic perception and general perception is very different depending on the theoretical base you start from. There is no need to reject theories out of hand because by pursuing and extending their conflicts into more specific and experimental applications, you can further the discussion. This is surely an appropriate stance for further investigations on aesthetic perception.[7]

A fourth study which may point to the future in perceptual research was summarized in a New York Times article by Sandra Blakeslly reports on the research of Martha Farah and Steven Kosslyn.[8] The focus of the research is the use of brain scanning, which is a visualization process using heat sensors to trace pathways in the brain. The scanning technique detects the effects of imaging on other functions of brain such as understanding language. "People have always wondered if there are pictures in the brain" Dr. Martha Farah, a psychology professor at the University of Pennsylvania said,"The debate centered on a specific query: as a form of thought, is mental imagery rooted in the abstract symbols of language or in the biology of the visual system? The biological arguments are winning converts every day ... The new findings are based on the notion that mental capacities like memory, perception, mental imagery, language and thought are rooted in complex underlying structures in the brain. Thus an image held in the mind's eye has physical rather than ethereal properties" The studies contend that imagery is essential in thought processes to call up information in memory, to reason and to learn new skills. The research methodology uses new heat sensing imaging technology to trace the functions of the brain and how each lobe interacts with the other. It is a promising method for

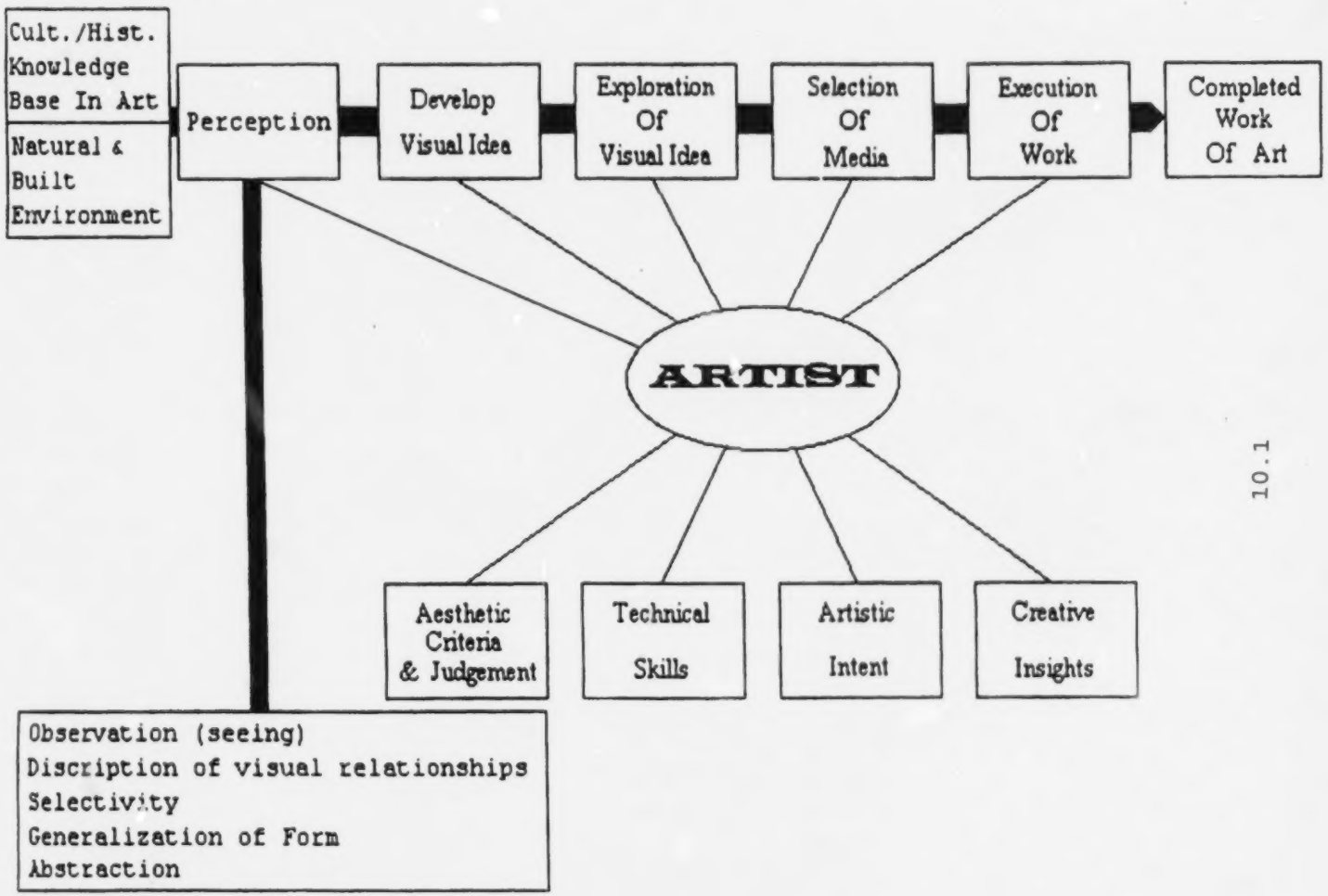
documenting the connection between language, perception and imaging in a biologically based visual system. With the new scanning technology that produces heat sensitive pictures, we can now trace the activity of the brain in normal individuals and find out what areas are functioning in visual activities and what the relationships may be with other cerebral functions. Farah and Kosslyn's research suggests a positive relationship. Therefore, a fertile area for research is to couple heat mapping of the brain with perceptually oriented art activities and detect what parts of the brain are used and how each lobe functions during artistic activities to further determine whether or not these patterns of cerebral visual activity are connected to language development. Related to this would be to determine the connection of art activities to the same perceptual functions that relate to recognition of symbol systems such as letters and/or words. The relationship between visualization and language described by Arnheim may be validated by the heat scanning research of Farah and Kosslyn.

The Model for the Artistic Process

A model for an artistic process in which perception plays a formative role is described in this section. The model has four components. First is the knowledge base which the artist uses as source material for the development of a visual idea or concept. Second is the perceptual process by which we perceive and interrogate visually the knowledge base through observation, visual relationships, selectivity, generalization of form and abstraction. The third component describes how the artist engages in the making of art. The fourth component is the artist (see Diagram 2).

The Knowledge Base in Art

Diagram 2.



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The visual arts encompass a large body of knowledge. A clue to size can be grasped through encyclopedic reviews, such as the Encyclopedia Britannica. The fifteenth edition, the first to use the propedia, illustrates how the arts fit into the larger domain of what we know about ourselves. Mortimer Adler explained how a committee of scholars organized the knowledge base for the encyclopedia into a circle of knowledge containing the nine areas; Matter and Energy, The Earth, Life on Earth, Human Life, Human Society, Art, Technology, Religion, and History of Humankind. Art in this schema encompasses not only the visual arts but the other art forms, and it contains one ninth of the knowledge base. This is the domain available to the artist as source material for artistic ideas.

Perception

The perceptual process used in the model is based on Arnheim's theories of perception and its role in the visual concept formation. Central to the artistic process is how the artist perceives the natural and/or built environment. It is not something that happens just when the artist in the mode of making art, it is a constant activity in which an artist records visual ideas and events and is provided with visual clues from the environment. A recording of the process is found Paul Klee's notebooks that are exemplary of how an artist documents and organizes visual ideas from perceptual clues . The notebooks were published in two volumes; volume one reviewing Klee's theory of form titled The Thinking Eye,[9] the second on the study of nature, The Nature of Nature[10] as the starting point for the creative processes of the artist. Giulio Carlo Argan in the Preface to The Thinking Eye states, "The writings which compose Paul Klee's theory of form production and pictorial form have the same importance and the same meaning for modern art as Leonardo's writings which composed his theory of painting for Renaissance

art." In addition, the artist goes beyond just observing and attends to establishing connections between what they see and what they do, i.e., visual relationships between their artistic ideas, the medium which they chose to work and the artistic outcome. In making these decisions they become perceptively selective. They look, attend to, and notice the things which are relevant to their work. Robert Indiana, in the sixties was very taken by the popular culture. He created a catalogue of images and perceptual clues from the world of advertising, typography, and signage which became his subject matter. His configuration of the letters L-O-V-E in type and in sculpture became an icon of the period.

Once the artist has established the visual connection or relationship with their subject matter they must be selective about what they choose to use. Selectivity implies that the artist at this stage engages in aesthetic judgements which ultimately determine the form and artistic merit of the work. This connects the work with the "gestalt" of the artist's observations and perceptions, i.e., the generalization of form, the transfer of visual clues and knowledge from the perceptual experiences or encounters to the aesthetic qualities of the work.

Generalization of the form leads to abstraction of the visual idea, the ability of the artist to select the parts of the whole that are the essence of the object. Mondrian in his abstraction of the trees for over a period of years resulted in the non-objective paintings he is now famous for. The tasks in the perceptual process are all used. Astute and longated observation of one object a tree, detailed visual analysis of the tree form through drawing and painting, generalization of the form by simplification of the tree to tree like cubist liner patterns and establishing a style which was refined in the non-objective compositions of his latter work. Mondrian's catalogue of perceptual clues are visually documented in his work over time and the reduction of those clues

to non-objective linear forms exemplify his method of abstraction.

The Making of the Work of Art.

The work of art is the product of what the artist has perceived. The artist task is to make the artistic idea a reality though their medium. Further to sophisticate the visual idea in a trial and error process in the following categories, Defining a Visual Idea, Exploration of the Visual Idea, Selection of Media, and Execution of Work. These categories track the decision making process the artist uses to execute the visual idea. The other part of the art making process which the artist controls is determining the artistic intent by making aesthetic judgements, applying technical skills, and providing the creative insights.

The Artist

The artist is the intervening variable that makes this process different from the scientific method or the Socratic mode of inquiry. Each artist brings to the process his/her own aesthetic criteria and method for receiving and recognizing perceptual clues. He or she insures the artistic integrity through out the process and provides the creative and perceptive insights which may change or alter the direction of the work at any stage in its development.

The perceptual skills and insight that the artist uses in observing, but more importantly interpreting, the vast knowledge base is the first step in developing an artistic idea. More important is the fact that the artist is constantly perceiving the work in different ways as it evolves which affects aesthetic and creative judgements. Further his/her ability to observe and be able to generalize from observations about the progress of the work.determined the aesthetic merit of the work.

Summary

What then have I learned as to the usefulness of the model as a pedagogical tool?

- It has defined for my students the part that critical inquiry and aesthetic judgements play in the making of art. Most students are in art education programs have come from studio based art programs in the high schools and lower division college courses. They have little or no insight or skills in critical inquiry and aesthetics. Most of them are of the opinion that these two areas have little to do with artist who make art. The model shows how these two important content domains relate to the artistic process in a context that the student can understand.
- Perception is a major player in the game of creating art. It is important to teaching all students, but particularly art students, how and what to see and how to analyze and make judgements as to what they see. Inserting perception into the process of creating art is another important plus in using the model as a teaching tool. Through a series of programmatic tasks and exercises I can explain why and how the artist uses their unique perceptual skills in the making of art. The idea of a "visual point of view", is a vivid example of the photographer who can take the ordinary and make it special and aesthetically pleasing. Further the model exemplifies how perception is present in the decision making process used by the artist in all stages of the development of the work.
- The importance of the individual artist in the history and process of art making. People make art and it would not exist if they were not part of the ecological mix. It also gives the reason for the differences in works of art based on the rational that outcomes vary as people vary. The model emphasizes the role the artist plays in the process and shows that

the character and style of the work of art is dependent on the artist. It does not seek to counter the argument that the object should stand alone but illustrates the interaction between the process of art making and a human being. However it considers the variances in creative insights, technical competencies, and aesthetic judgements in the artist which effect the artistic merit of the object. Artist make "good and bad calls" in each category and thus explains the difference in the aesthetic merit of the objects they create. The variable in the process is the individual aesthetic judgements that the artist make based on their criteria. Aesthetic criteria being the overriding and dominant factor in determining the success of the artistic process.

- Other disciplines, such as sciences, put a great deal of emphasis on learning about the scientific method. Their emphasis on laboratory science courses is essential to knowing about science because the student experiences the scientific method of inquiry. In other words, the scientists see the value of the hands on experience and they emphasize the importance of that engagement to learning in and about science. The same rational should be part of why we teach art through the studio experience. Art making is a way of knowing and learning about the visual arts. The usefulness of the model is that it explains what is happening when we engage the student in making art and it shows that the art product is not the only learning outcome for the student.
- The integration of knowledge and the transfer of information processes and techniques between disciplines is a higher level of learning. The ability to make connections and reorganize relationships between subject areas is the ultimate outcome for the educated person. The artist and the artistic process have been models for the integration of

knowledge. Leonardo is a case in point. The model provides connecting points to other parts of the curriculum for comparative and integrated study such as and the comparative study of the artistic process with the scientific method or the Socratic method.

To summarize the documentation and the use of the model as part of course has been a first step in testing its face validity and content relevance. Thus, a second step is to present the model to the field and gather reactions as to its usefulness for pedagogy.

End Notes

1. Perlmutter, M.L. and D.N. Perkins, A Model for Aesthetic Response in the Arts, Madeja, Stanley S., and D.N. Perkins, Editors, Monograph, St. Louis, MO: CEMREL Inc., 1982, p.1.

2. Arnheim, R., Visual Thinking, Berkeley: University of California Press, 1969.

3. see Madeja, Stanley S., "Structuring a Research Agenda for the Arts and Aesthetics" Arts & Aesthetics. Cemrel, Inc., St. Louis, MO, 1977, pg. 380-83.

4. Perlmutter, M.L. and D.N. Perkins, p.5.

5. Ibid, p.6.

6. Madeja, Stanley S. , "The Relationship Between Aesthetic Development and General Cognitive Development," in A Model for Aesthetic Response in the Arts, Madeja, Stanley S., and D.N. Perkins,Monograph, Editors, St Louis, MO: CEMREL Inc, 1982, p.204.

7. Ecker, David and Stanley S. Madeja, Pioneers in Perception, Monograph, St. Louis, MO: CEMREL Inc., 1979, p. 336-341.also see Madeja, Stanley S.," Three Perspectives on Artistic Development: James Gibson, Henry Schaffer-Summer, and Hoyt Sherman," Visual Art and Research, Vol. 11, No. 1, University of Illinois, 1985, p. 73-78.

8. Blakeslly, Sandra, "Seeing and Imagining, Working Clues to the Workings of the Mind's Eye." New York Times, August 31, 1993, Pp 5,6.

9. Paul Klee Notebooks,vol.1:The Thinking Eye, Jurg Spiller, Editor, New York:George Wittenborn Inc.,1973.

10. Paul Klee Notebooks,vol.2:The Nature of Nature, Jurg Spiller, Editor, New York:George Wittenborn Inc.,1973.